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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,280

07/18/2006

Tohru Ono

SIW-103US

4214

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EXAMINER

VANAMAN, FRANK BENNETT

ART UNIT

PAPER NUMBER

3618

MAIL DATE

DELIVERY MODE

03/09/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,280	<b>Applicant(s)</b> ONO ET AL.	
	<b>Examiner</b> Frank B. Vanaman	<b>Art Unit</b> 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/4/07, 6/7/07, 10/24/07, 11/28/07</u> .                      | 6) <input type="checkbox"/> Other: ____.                          |



***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on Jan 20, 2004 (P 2004-011872). A copy of this Japanese application is not currently present in the file wrapper. The examiner notes that applicant's transmittal papers do not refer to the filing of a Foreign Priority document, however the Office-mailed Acceptance Letter of Aug. 11, 2008 does refer to the presence of a priority document.

***Specification***

2. The disclosure is objected to because of the following informalities: In the specification at page 5, lines 3-5, it is not entirely clear why certain phrases such as "auxiliary unit" are repeated with the second instance directly following the first but enclosed in parentheses, and as such, these repeated phrases appear redundant.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al. (US 6,378,637, cited by applicant) in view of Kondo (US PGPub. 2003/0070858, cited by applicant). Ono et al. (see figure 7) teach a vehicle with a vehicle floor (15a) and a surrounding periphery which may be defined as constituting an outward-most extent of a vehicle sill, such as associated with the vehicle doors, and/or structural elements which support the periphery, at least a pair of longitudinally extending floor frame members (14L, 14R), a fuel cell unit (3), an auxiliary unit (2 and/or 8) adjacent one side of the fuel cell in a longitudinal direction of the vehicle and an electrical storage

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unit (7) adjacent the fuel cell such that the auxiliary unit, fuel cell and electrical storage unit are disposed 'in that order' in a longitudinal vehicle direction, the vehicle additionally including a high voltage component (21, 22) at least one of which (22) being laterally positioned with respect to the storage device, the arrangement including further elements (4, 5) mounted laterally exteriorly of the longitudinal frame elements between the frame elements and external periphery of the vehicle.

The reference to Ono et al. fails to teach that each of the fuel cell, storage unit and auxiliary unit are sandwiched from both sides by vehicle frame cross-members. Kondo teaches that it is well known to provide plural fuel cell-related device (23, 50, 50) each separately sandwiched between laterally extending vehicle frame members (43) connected to longitudinally extending frame members (42). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide each of the fuel cell related elements taught by Ono et al. to each be sandwiched by cross members as taught by Kondo for the purpose of structural compartmentalization (e.g., providing each element with a separate surrounding frame, and to protect the fuel cell components in the event of an unexpected deformation of elements of the vehicle frame (see Kondo at paragraph 0040)

As regards claims 3 and 4, the references to Ono et al. as modified by Kondo fail to specifically teach that the elements mounted exteriorly of the frame portions constitute high voltage components. Ono et al. teach a further embodiment (see figure 2) where the storage unit is larger and extends further in a lateral direction, but fails to specifically teach a location for the high voltage component. Initially, Ono et al. already teach that it is well known to locate further components exteriorly of the longitudinal frame members and interiorly of the peripheral sill (phantom lines 11), and in that the space occupied by the high voltage component in the embodiment of figure 7 would not be available due to the increased size of the storage element, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the high voltage component in the space exterior of the longitudinal frame elements and interior of the periphery so as to allow the accommodation of the larger electrical storage element.

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**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shimizu et al. (US 6,494,286), Chernoff et al. (US 6,843,336), Morita et al. (US 6,907,947), Kubota et al. (US 6,978,855), Mizuno (US 6,994,178), Guidry et al. (US 7,108,091), and Kondo (US 7,270,202) teach vehicle structures and arrangements of pertinence.

6. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A response to this action should be mailed to:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450,

Or faxed to:

PTO Central Fax: 571-273-8300

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3618**

/Frank B Vanaman/  
Primary Examiner, Art Unit 3618